

WHAT IS CLAIMED IS:

1. A network system comprising:

a terminal device; and

an agent module disposed between a network and the
5 terminal device, for relaying an access from the terminal
device to the network,

wherein the agent module includes a request signal
transmission section for transmitting to the terminal device
a request signal requesting to establish an information
10 transmission enabled state between the terminal device and the
agent module, the request signal including identification
information to identify the agent module; and

the terminal device includes:

a reception section for receiving the transmitted
15 request signal,

a first determination section for determining
whether the agent module which has transmitted the request
signal is an agent module to which the terminal device
receiving the request signal is to be connected; and

20 an establishment section for establishing the
information transmission enabled state between the
terminal device receiving the request signal and the agent
module which has transmitted the request signal, when the
first determination section ascertains that the agent
25 module which has transmitted the request signal is the
agent module to which the terminal device receiving the
request signal is to be connected.

2. The network system according to claim 1,
wherein the agent module includes:

an identification section for identifying whether
5 another terminal device other than the terminal device
is another authorized terminal device that is to be
connected to the agent module, when the another terminal
device issues to the network a request for a connection
to the terminal device to be connected to the network
10 through the agent module;

a connection section for connecting the terminal
device and the another terminal device after the
information transmission enabled state is established
between the agent module and the terminal device; and
15 when the identification section ascertains that the
another terminal device is the another authorized terminal
device to be connected to the agent module, the request
transmission section outputs the request signal to the terminal
device to establish the information transmission enabled
20 state.

3. The network system according to claim 2,
wherein the another terminal device is used to remotely
control information processing apparatus connected to the
25 terminal device; and

when the another terminal device and the terminal device
are connected by the connection section, the another terminal

device performs a processing for the remote control.

4. The network system according to claim 3,
wherein the information processing apparatus is
5 information recording apparatus for recording information in
a recording medium; and

the another terminal device performs the remote control
to set at least a time from which the information recording
apparatus starts a process for recording the information.

10 5. The network system according to claim 1,
wherein the agent module includes:

an accumulation section for accumulating
distribution information to be distributed to the
15 terminal device;

a second determination section for determining,
based on a state signal transmitted from the terminal
device, whether the terminal device is ready for receiving
the distribution information after the information
20 transmission enabled state is established between the
terminal device and the agent module; and

a distribution section for distributing the
distribution information when it is determined that the
terminal device is ready for receiving the distribution
25 information, and

the terminal device includes:

a state signal transmission section for transmitting

to the agent module the state signal indicating whether the terminal device is ready for receiving the distribution information; and

an distribution information reception section for receiving the distribution information, which is distributed.

6. The network system according to claim 1, wherein the agent module includes:

an update information accumulation section for accumulating update information used to update a function of information processing apparatus connected to the terminal device; and

an update information transmission section for transmitting the update information to the terminal device after the information transmission enabled state is established between the terminal device and the agent module, and

the terminal device includes:

an update information reception section for receiving the update information; and

an update section for utilizing the update information to update the function of the information processing apparatus.

7. The network system according to claim 1, wherein the agent module includes:

a failure signal reception section for receiving a failure signal, when the failure signal indicating that an information processing apparatus connected to the terminal device has a breakdown is transmitted from the terminal device; and

a result signal transmission section for diagnosing a failure state of the information processing apparatus based on the failure signal to transmit diagnostic result information to the terminal device after the failure signal is received and the information transmission enabled state is established between the terminal device and the agent module, and the terminal device further includes:

a failure signal transmission section for transmitting to the agent module the failure signal indicating that the information processing apparatus has a breakdown;

a result signal reception section for receiving the diagnostic result information; and

a failure processing section for performing a process for the information processing apparatus having a breakdown based on the diagnostic result information.

8. An agent module comprising a request signal transmission section for transmitting to a terminal device a request signal requesting to establish an information transmission enabled state between the agent module and the

terminal device, the request signal including identification information to identify the agent module.

9. A terminal device comprising:

5 a reception section for receiving a request signal,
a determination section for determining whether an agent module which has transmitted the request signal is an agent module to which the terminal device receiving the request signal is to be connected; and

10 an establishment section for establishing an information transmission enabled state between the terminal device receiving the request signal and the agent module which has transmitted the request signal, when the determination section ascertains that the agent module which has transmitted the
15 request signal is the agent module to which the terminal device receiving the request signal is to be connected.

10. A network operation method comprising the steps of:

transmitting from an agent module to a terminal device
20 a request signal requesting to establish an information transmission enabled state between the terminal device and the agent module, the request signal including identification information to identify the agent module;

determining whether the agent module is an agent module
25 to which the terminal device is to be connected;

establishing the information transmission enabled state between the terminal device and the agent module, when it is

determined that the agent module is the agent to which the terminal device is to be connected.

11. The network operation method according to claim 10,
5 further comprising the steps of:

identifying whether another terminal device other than the terminal data is another authorized terminal device that is to be connected to the agent module, when transmitting a request for a connection from the another terminal device; and

10 connecting the terminal device and the another terminal device after the establishing step,

wherein the request signal transmitting step is performed to establish the information transmission enabled state, when it is identified, in the identifying step, that the another
15 terminal device is the another authorized terminal device that is to be connected to the agent module.

12. The network operation method according to claim 11, further comprising the steps of:

20 remotely controlling a information processing apparatus connected to the terminal device;

performing a process for the remotely controlling step after the connection step.

25 13. The network operation method according to claim 12, further comprising the steps of recording information in a recording medium.

14. The network operation method according to claim 10,
further comprising the steps of:

accumulating distribution information to be distributed
5 to the terminal device;

transmitting a state signal from the terminal device to
the agent module after the establishing step;

determining whether the terminal device is ready for
receiving the distribution information based on the state
10 signal; and

distributing the distribution information from the agent
module to the terminal device, when it is determined that the
terminal device is ready for receiving the distribution
information.

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15. The network operation method according to claim 10,
further comprising the steps of:

accumulating update information used to update a function
of information processing apparatus connected to the terminal
20 device;

transmitting the update information from the agent module
to the terminal device after the establishing step; and

updating the function of the information processing
apparatus by using the update information.

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16. The network operation method according to claim 10,
further comprising the steps of:

transmitting a failure signal indicating that
information processing apparatus connected to the terminal
device has a breakdown from the terminal device to the agent
device, when the information processing apparatus has a
5 breakdown;

diagnosing a failure state of the information processing
apparatus based on the failure signal based on the failure
signal after the establishing step;

transmitting a diagnostic result information from the
10 agent module to the terminal device; and

performing a process for the information processing
apparatus having a breakdown based on the diagnostic result
information.

15 17. An information recording medium in which an agent
program is stored in a readable form for a computer, the agent
program comprising the steps of transmitting from an agent
module to a terminal device a request signal requesting to
establish an information transmission enabled state between
20 the terminal device and the agent module, the request signal
including identification information to identify the agent
module.

18. An information recording medium in which a terminal
25 processing program is stored in a readable form for a computer,
the terminal processing program comprising the steps of:
receiving a request signal transmitted from an agent

module to a terminal device, the request signal used to establish an information transmission enabled state between the terminal device and the agent module, the request signal including identification information to identify the agent module;

determining whether the agent module is an agent module to which the terminal device is to be connected based on the identification signal;

establishing the information transmission enabled state between the terminal device and the agent module, when it is determined that the agent module is the agent module to which the terminal device is to be connected.

19. An agent program comprising the steps of transmitting from an agent module to a terminal device a request signal requesting to establish an information transmission enabled state between the terminal device and the agent module, the request signal including identification information to identify the agent module.

20. A terminal processing program comprising the steps of:

receiving a request signal transmitted from an agent module to a terminal device, the request signal used to establish an information transmission enabled state between the terminal device and the agent module, the request signal including identification information to identify the agent

module;

determining whether the agent module is an agent module to which the terminal device is to be connected based on the identification signal;

- 5 establishing the information transmission enabled state between the terminal device and the agent module, when it is determined that the agent module is the agent module to which the terminal device is to be connected.